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AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-2. (Cancelled).

3. (Currently amended) ~~The process according to claim 1~~

A process for designing a product automatically in accordance with a desired product design concept for a product under consideration, said process comprising:

analyzing wants and needs information which has been input with respect to the product under consideration;

based on the aforesaid analyzed wants and needs information, carrying out weighting with respect to evaluation indices which are quantitative measures of the degree to which a user is likely to perceive a benefit latent in the product under consideration and inherent in the aforesaid wants and needs information to have been achieved, and selecting at least one index among a plurality of such weighted evaluation indices as a primary evaluation index; and

defining at least one product design concept for which the primary evaluation index selected at said primary evaluation index selecting step is a maximum or minimum,

wherein: said analysis step converts, as a result of application of a conversion rule previously stored in a storage device, said wants and needs information to desired quality information reflecting the usage circumstances under which the user wishes to use the product under consideration; and

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said desired quality information is used in said primary evaluation index selecting step to carry out weighting with respect to the aforesaid evaluation index.

4. (Currently amended) ~~The process according to claim 1~~ A process for designing a product automatically in accordance with a desired product design concept for a product under consideration, said process comprising:

analyzing wants and needs information which has been input with respect to the product under consideration;

based on the aforesaid analyzed wants and needs information, carrying out weighting with respect to evaluation indices which are quantitative measures of the degree to which a user is likely to perceive a benefit latent in the product under consideration and inherent in the aforesaid wants and needs information to have been achieved, and selecting at least one index among a plurality of such weighted evaluation indices as a primary evaluation index;
and

defining at least one product design concept for which the primary evaluation index selected at said primary evaluation index selecting step is a maximum or minimum,

wherein: said analysis step converts said wants and needs information to desired quality information as a result of application of situational information reflecting the circumstances under which the product under consideration is to be used; and

said desired quality information is used in said primary evaluation index selection step to carry out weighting with respect to the aforesaid evaluation index.

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5. (Original) The process according to claim 3 wherein:

in said primary evaluation index selection, weighting of the aforesaid evaluation index is carried out by calculating, for each evaluation index, score indicating correlation between said desired quality information obtained by conversion and said evaluation index.

6. (Original) The process according to claim 5 further comprising:

displaying a matrix table formed by combination of said desired quality information and said evaluation indices; and

prompting user to input ranked information with respect to said matrix table.

7.-8. (Cancelled).

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9. (Currently amended) ~~The process according to claim 7~~ A process for designing a product automatically in accordance with a desired product design concept for a product under consideration, said process comprising:

prompting a user to input said wants and needs information, wherein said prompting step comprises:

storing identification information identifying the user who input the aforesaid wants and needs information in linked fashion with the aforesaid wants and needs information; and

increasing the value of a point for providing positive feedback in response to input of said wants and needs information in connection with a product that is put on the market for a user identified based on said identification information;

analyzing the wants and needs information which has been input with respect to the product under consideration;

based on the aforesaid analyzed wants and needs information, carrying out weighting with respect to evaluation indices which are quantitative measures of the degree to which the user is likely to perceive a benefit latent in the product under consideration and inherent in the aforesaid wants and needs information to have been achieved, and selecting at least one index among a plurality of such weighted evaluation indices as a primary evaluation index; and

defining at least one product design concept for which the primary evaluation index selected at said primary evaluation index selecting step is a maximum or minimum.

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10. (Original) The process according to claim 3 further comprising:

carrying out weighting of said desired quality information obtained by conversion at said analysis step;

the weighted desired quality information being used at said primary evaluation index selection step to carry out weighting with respect to the aforesaid evaluation index.

11. (Original) A process according to claim 10 wherein:

in said weighting step, weighting is carried out by calculation based on voting input by the user for said desired quality information obtained by conversion.

12.-13. (Cancelled).

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14. (Currently amended) ~~The process according to claim 1~~ A process for designing a product automatically in accordance with a desired product design concept for a product under consideration, said process comprising:

analyzing wants and needs information which has been input with respect to the product under consideration;

based on the aforesaid analyzed wants and needs information, carrying out weighting with respect to evaluation indices which are quantitative measures of the degree to which a user is likely to perceive a benefit latent in the product under consideration and inherent in the aforesaid wants and needs information to have been achieved, and selecting at least one index among a plurality of such weighted evaluation indices as a primary evaluation index;
and

defining at least one product design concept for which the primary evaluation index selected at said primary evaluation index selecting step is a maximum or minimum,

wherein said ~~primary evaluation index~~ product design concept definition step comprises:

calculating a first score by summing, for each evaluation index, values indicating respective degrees of correlation between the aforesaid evaluation indices which have been previously stored and desired quality information obtained by conversion;

calculating a difference in levels of satisfaction of the user with respect to ~~the a~~ provider of the product under consideration and another provider which provides a product equivalent thereto as input by the user for each evaluation index; and

calculating a weighted second score based on the aforesaid calculated values indicating differences in levels of satisfaction.

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15. (Currently amended) ~~The process according to claim 1~~ A process for designing a product automatically in accordance with a desired product design concept for a product under consideration, said process comprising:

analyzing wants and needs information which has been input with respect to the product under consideration;

based on the aforesaid analyzed wants and needs information, carrying out weighting with respect to evaluation indices which are quantitative measures of the degree to which a user is likely to perceive a benefit latent in the product under consideration and inherent in the aforesaid wants and needs information to have been achieved, and selecting at least one index among a plurality of such weighted evaluation indices as a primary evaluation index;
and

defining at least one product design concept for which the primary evaluation index selected at said primary evaluation index selecting step is a maximum or minimum,

wherein said product concept definition step comprises:

defining an interfering factor which interferes with achievement of functionality associated with the evaluation index selected at said primary evaluation index selection step;

obtaining means for circumventing said interfering factor by searching a design information database in which design concepts from past product designs are stored; and

storing said interfering factor circumvention means as a design concept for the product under consideration.

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16.-17. (Cancelled).

18. (Currently amended) ~~The apparatus according to claim 17~~ An apparatus for designing a product, using a computer in accordance with a desired product design concept for a product under consideration, said apparatus comprising:

an analyzer that analyzes wants and needs information which has been input with respect to the product under consideration;

a primary evaluation index definer that, based on said analyzed wants and needs information, carries out weighting with respect to evaluation indices which have been previously stored in a storage device and which are quantitative measures of the degree to which a user is likely to perceive a benefit latent in the product under consideration and inherent in said wants and needs information to have been achieved, and that selects at least one index among a plurality of such weighted evaluation indices as a primary evaluation index; and

a product concept evaluator that defines at least one product design concept for which the primary evaluation index selected by said primary evaluation index definer is a maximum or minimum.

wherein: said analyzer, by applying a conversion rule previously stored in a storage device, converts said wants and needs information to desired quality information reflecting the usage circumstances under which the user wishes to use the product; and

said primary evaluation index definer uses said desired quality information to carry out weighting with respect to said evaluation index.

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19. (Currently amended) The apparatus according to claim 18 wherein the aforesaid primary evaluation index definer carries out weighting of said evaluation index by calculating, for each evaluation index, score indicating correlation between said desired quality information obtained by conversion and said evaluation index.

20. (Original) The apparatus according to claim 19 further comprising:

an input/output unit that displays a matrix table formed by combination of said desired quality information and said evaluation indices, and that prompts user to input ranked information with respect to said matrix table.

21.-22. (Cancelled).

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23. (Currently amended) ~~The product design terminal device according to claim 22 further comprising:~~ A product design terminal device which uses a computer to acquire, at a user's site, information indicating wants and needs of the user with respect to a product under consideration, said product design terminal device comprising:

an input unit that prompts a user to input said wants and needs information with respect to the product by way of a wants and needs information input/output equipment provided at the product or at a product containing the product;

a sending unit that sends to a server said wants and needs information which was input from the user by way of said wants and needs information input/output equipment;

a storage unit that stores, in linked fashion with said wants and needs information, identification information identifying the user who input the aforesaid wants and needs information; and

a point value calculator that increases the value of a point for providing positive feedback in response to input of said wants and needs information in connection with a product that is put on ~~a~~ the market for a user identified based on said identification information.

24. (Cancelled).

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25. (Currently amended) ~~The recording medium according to claim 24~~ A computer-readable recording medium for storing a program capable of causing a computer to perform product design processing in accordance with a desired product design concept for a product under consideration, the aforesaid product design processing comprising:

analysis processing for analyzing wants and needs information which has been input with respect to the product under consideration;

primary evaluation index selection processing for carrying out, based on said analyzed wants and needs information, weighting with respect to evaluation indices which have been previously stored in a storage device and which are quantitative measures of the degree to which a user is likely to perceive a benefit latent in the product under consideration and inherent in the aforesaid wants and needs information to have been achieved, and selecting at least one index among a plurality of such weighted evaluation indices as a primary evaluation index; and

product concept definition processing for defining at least one product design concept for which the primary evaluation index selected by said primary evaluation index selection processing is a maximum or minimum,

wherein: the aforesaid analysis processing converts, as a result of application of a conversion rule previously stored in a storage device, said wants and needs information to desired quality information reflecting the usage circumstances under which the user wishes to use the product; and

said primary evaluation index selection processing uses said desired quality information to carry out weighting with respect to the aforesaid evaluation index.

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26. (Original) The recording medium according to claim 25 wherein:

said primary evaluation index selection processing carries out weighting of the aforesaid evaluation index by calculating, for each evaluation index, score indicating correlation between said desired quality information obtained by conversion and said evaluation index.

27. (Original) The computer-readable recording medium according to claim 26 wherein said product design processing further comprises:

ranked input processing for displaying a matrix table formed by combination of said desired quality information and said evaluation indices, and for prompting user to input ranked information with respect to said matrix table.

28.-29. (Cancelled).

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30. (Currently amended) ~~The computer-readable recording medium according to claim 29~~ A computer-readable recording medium for storing a program capable of causing a computer to perform product design terminal processing for acquiring, at a user's site, information indicating wants and needs of the user with respect to a product under consideration, said product design terminal processing comprising:

input processing for prompting the user to input said wants and needs information with respect to the product by way of a wants and needs information input/output equipment provided at the product under consideration or at a product containing that product;

storage processing for storing, in linked fashion with the aforesaid wants and needs information, identification information identifying the user who input said wants and needs information;

sending processing for sending to a server said wants and needs information which was input from the user by way of said wants and needs information input/output equipment; and

~~wherein the aforesaid product design terminal processing further comprises:~~

point value calculation processing for increasing the value of a point for providing positive feedback in response to input of said wants and needs information in connection with a product that is put on the market for a user identified based on said identification information.

31.-32. (Cancelled).